

# CD 1

## CD Player

### OWNER'S GUIDE

## **Important Safety Instructions**

The lightning flash with the arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of “dangerous voltage” inside the product that may constitute a risk of electric shock.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the product.

### **TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL**

1. **Read Instructions** — Read all the safety and operating instructions before operating this product.
2. **Retain Instructions** — Retain safety and operating instructions for future reference.
3. **Heed Warnings** — Adhere to all warnings on the product and in the operating instructions.
4. **Follow Instructions** — Follow all operating and use instructions.
5. **Cleaning** — Unplug this product from the wall outlet before cleaning. Use a damp cloth for cleaning. Clean the outside of the product only.
6. **Attachments** — Do not use attachments that are not recommended by the product manufacturer; they may be hazardous.
7. **Water and Moisture** — Do not use this product near water.
8. **Accessories** — Do not place this product on an unstable cart or stand. The product may fall, causing bodily injury and damage to the product. A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart to overturn.
9. **Ventilation** — Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided.
10. **Power Sources** — Operate this product only from the type of power source indicated on the label. If you are not sure of the type of power supply to your home, consult your dealer or local power company. This product is equipped with a three-prong grounding plug. This plug will only fit into a grounding power outlet. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding plug.
11. **Power Cord Protection** — Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them.
12. **Lightning** — Unplug the unit from the wall outlet for added protection during a lightning storm and when it is left unattended and unused for long periods of time. This will prevent damage to the product due to lightning and power line surges.
13. **Overloading** — Do not overload wall outlets or extension cords. This can result in a fire or electric shock.
14. **Inserting Objects into Unit** — Never push objects of any kind into this product through any openings; they may touch dangerous voltage points or short out parts that could result in fire or electric shock.
15. **Servicing** — Do not attempt to repair or service this product yourself. Opening or removing covers may expose you to dangerous voltage and other hazards. Refer all servicing to qualified service personnel.
16. **Damage Requiring Service** — Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions: **a)** If the power-supply cord or plug is damaged. **b)** If liquid has been spilled into the product. **c)** If the product has been exposed to rain or water. **d)** If the product does not operate normally by following the operating instructions. **e)** If the product has been dropped or damaged in any way. **f)** If the product exhibits a distinct change in performance.
17. **Replacement Parts** — When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer. Unauthorized substitutions may result in fire, electric shock, and other hazards.
18. **Safety Check** — Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
19. **Wall or Ceiling Mounting** — Mount the product to a wall or ceiling only as recommended.
20. **Heat** — The product should be situated away from heat sources such as radiators, heat registers, stoves, and other products that produce heat.

# **Table of Contents**

<b><i>Introduction</i></b> .....	<b>4</b>
<b><i>Placement and Ventilation Guidelines</i></b> .....	<b>5</b>
<b><i>Rack Mounting</i></b> .....	<b>5</b>
<b><i>AC Mains Voltage</i></b> .....	<b>6</b>
<b><i>Rear Panel Connections</i></b> .....	<b>7</b>
<b><i>Playing a CD</i></b> .....	<b>8</b>
<b><i>Remote Control Operation</i></b> .....	<b>10</b>
<b><i>Setup Menu Options</i></b> .....	<b>11</b>
<b><i>Problems and Remedies</i></b> .....	<b>12</b>
<b><i>If You Require Assistance or Warranty Repair</i></b> .....	<b>13</b>
<b><i>Specifications</i></b> .....	<b>14</b>

# **INTRODUCTION**

## ***Thank You for Choosing Parasound***

Your new Parasound Halo CD 1 CD player is designed with advanced new technology and built to the extremely strict quality and performance standards for which Parasound is renowned. We designed the new Halo CD 1 to perform at a higher level of sonic performance than you ever imagined possible from your CDs and we encourage you to read this entire manual to maximize your enjoyment.

### **IMPORTANT NOTICE**

***You should definitely read this owner's manual before using the CD 1. Operating the Halo CD 1 is nearly the same as a conventional CD player, however there are a few differences you should know about before you first use it.***

We wish you many years of listening enjoyment.                      - ***The Parasound Staff***

## ***Keeping Records for Future Reference***

Record the serial number located on the back panel or bottom of your CD 1 in the space below. Also note your Parasound Dealer's name and telephone number. Your purchase receipt/bill of sale is required to determine if your CD 1 is eligible for Parasound warranty service. We recommend that you make an extra copy of your original purchase receipt/bill of sale and store it inside the CD 1's carton.

Parasound CD 1 CD player Serial #: \_\_\_\_\_ (5 digit number below the bar code)

Parasound Dealer: \_\_\_\_\_

Parasound Dealer Phone Number: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

## ***Important Warranty information***

**Parasound Warranty information can be found at [www.parasound.com/warranty.php#](http://www.parasound.com/warranty.php#)**

**There is no Parasound warranty for this CD 1 if you did not purchase it from an Authorized Parasound Dealer and/or if you are not the original owner.** We recommend that you investigate warranty coverage statements made by an *unauthorized* dealer very carefully, as you will need to rely entirely upon your dealer, and NOT upon Parasound.

Unauthorized dealers lack the capability to make repairs or arrange for repairs of Parasound equipment. A list of Authorized Parasound Dealers and detailed warranty information is available at **[www.parasound.com](http://www.parasound.com)** or you can call **415-397-7100** between 8:30 am and 4 pm Pacific time. A missing or altered serial number could indicate that this unit was re-sold by an unauthorized dealer or is stolen merchandise. If this unit is missing its serial number or the serial number has been altered, you should return it to your dealer immediately for a full refund.

# **Unpacking Your CD 1 & Placement Guidelines**

## **Unpacking Your CD 1**

Carefully remove your CD 1 from its shipping carton and locate the enclosed accessories:

- AC power cord
- Remote Control and two AAA batteries

While you are unpacking your CD 1, inspect it thoroughly for possible shipping damage and tell your Parasound dealer immediately if you find any evidence of shipping damage. This would be a good time to make a copy of your sales receipt to store with the CD 1's original packing.

**Note:** Please save and store both the inner and outer cartons and, most especially, the foam packing inserts to protect the CD 1 if you have to move it or ship it. You may wish to flatten the cardboard cartons to save room in storage after cutting the taped seams on the bottom flaps.

## **Placement Guidelines**

The CD 1 will be easier to use and will last longer if you follow these simple guidelines:

- Use output interconnects that are long enough to leave some slack. This will enable you to pull the CD 1 out of a cabinet to check or change your connections without inadvertently disconnecting them.
- The CD 1 should never be placed in a completely enclosed cabinet.
- Place your CD 1 where you can route input and output signal cables as far as possible from any of your system's AC cords.
- Where signal cables must cross AC cords it's best if they cross at a 90° right angle.

## **Ventilation Requirements**

- Always position the CD 1 horizontally.
- The CD 1 should never be stacked above a heat producing component such as a power amplifier.
- Do not install the CD 1 in an unventilated equipment cabinet or compartment. Pockets of stagnant hot air can build up even in a cabinet whose front and back are open. A ventilation fan such as the Parasound Zbreeze is highly recommended to prevent "hot spots" in confined spaces.

## **Rack Mounting Your Parasound CD 1**

With its four feet removed, the CD 1's front panel height occupies two rack spaces: 3.5" or 88.2 mm. (A single standard rack space occupies 1.75"/44.1mm vertical space.) For mounting in a standard 19" (482mm) equipment rack, you must use the Parasound HRA 2 rack mount kit (purchased separately). The HRA 2 kit includes four bolts and eight plastic washers with raised "shoulders."

Slide one washer onto each mounting bolt with its raised shoulder pointing toward the panel hole. Carefully insert the bolt through the hole and slide the other washer on the bolt with its raised shoulder facing the rear side of the panel. The washers will sandwich the CD 1 panel and the four mounting bolts to prevent metal-to-metal contact between the CD 1 chassis, the equipment rack, and the other components mounted in the rack.

**Note:** Tighten each bolt just enough to keep the CD 1 secure in the rack to avoid compressing and deforming the shoulder washers. Eliminating metal-to-metal contact reduces the likelihood of creating a ground loop that might introduce hum into your system.

# **Before Connecting The CD 1 Power Cord**

## **AC Voltage Selection:**

***Please do not assume the AC Voltage Select switch has been set correctly.  
Please do not assume the 115V or 230V marking on its carton is correct.***

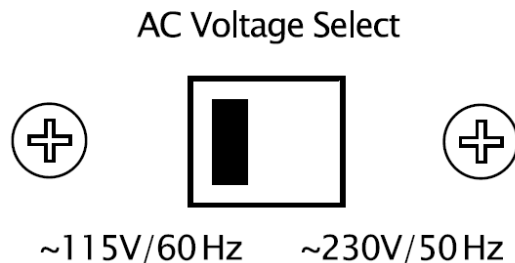
***The CD 1 will be seriously damaged if its AC Voltage Select switch is set incorrectly.  
Before plugging in your CD 1's AC power cord, check the position of the AC Voltage Select 115v/230v switch on the CD 1's back panel.***

### **Changing the setting of the AC Voltage Switch:**

Before changing the CD 1 AC Voltage Select switch be certain the AC power cord is disconnected.

### **If you live in a region with 220V-230V AC mains:**

Plugging the CD 1 into a 220V-240V AC mains outlet when its AC Voltage Select switch is set for 115V will severely damage the unit and could put you at risk of personal injury.



### **If you live in a region with 110v-120v AC mains:**

The 115V setting is correct for North America where AC line voltage varies between 110-120v. Most other countries use 220V-240V and the switch must be set to 230V. With the 230V setting the CD 1 can operate safely with AC line voltages between 220V-240V.

### **Incorrect AC Voltage Warranty Exclusion:**

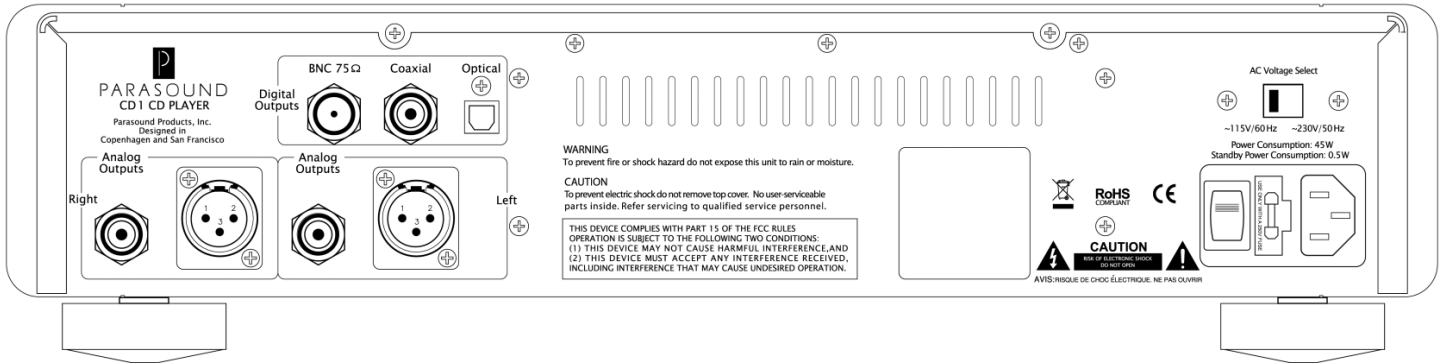
A CD 1 set for 115V which is damaged by 220V-240V is not covered under the Parasound Limited Warranty.

## **AC Power Cord**

An audiophile-grade IEC AC cord is supplied with your CD 1. Please connect it directly to an AC wall outlet or power conditioner that is always "live." If possible, plug all your other audio equipment into the same AC outlet or power strip. If different AC outlets are used for the CD 1 and other audio equipment the AC ground potential may be higher or lower between the outlets, resulting in audible hum in your speakers.

# Audio Connections

**Always turn off your CD 1 before making or changing any connections.** Inserting or removing an interconnect while the CD 1 and accompanying equipment is turned on can result in an immediate blast of sound that can damage your loudspeakers. Make sure there is no strain or tension on any interconnects that could cause them to become loose.



## **Analog Audio Output Connections**

### **Balanced XLR Output Jacks**

Recording and broadcast studios use balanced connections exclusively because of their inherent ability to reject noise and hum, thus assuring the best sound. All Parasound Halo products have balanced connectors with XLR jacks for the same reason, so you can take full advantage of their inherent noise reduction capability and superior sound quality. If your accompanying audio equipment has balanced connectors we recommend using them rather than the unbalanced RCA outputs.

#### *Balanced XLR Pin Configuration:*

The CD 1 balanced XLR outputs conform to this audio industry standard:

**Pin 1: Ground    Pin 2: Positive (+)    Pin 3: Negative (-)**

### **Unbalanced RCA Output Jacks**

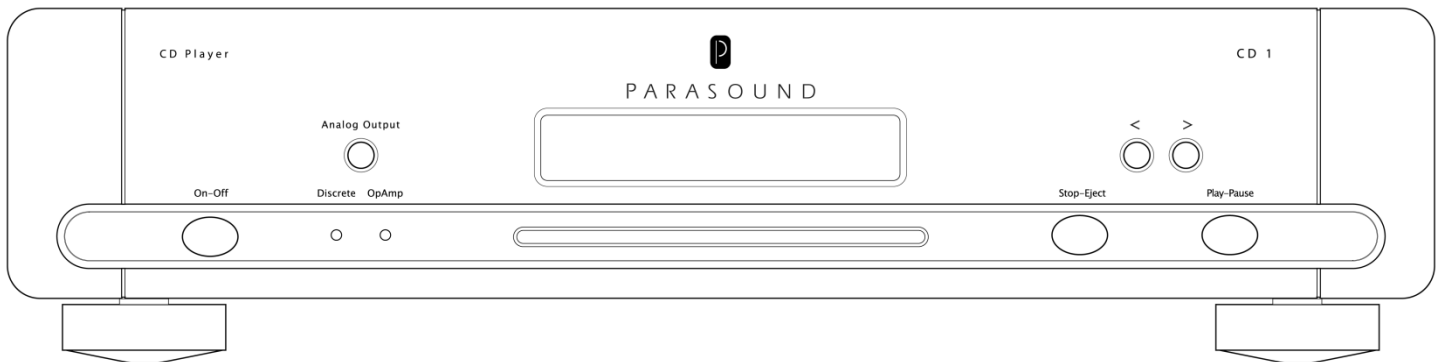
Use these output connections if your preamp doesn't have balanced input connections or if you simply prefer to use unbalanced connections.

## **Digital Audio Output Connections**

The CD 1 is equipped with three digital outputs: Optical, Coaxial and BNC 75Ω (ohm). All three outputs carry the same S/PDIF digital signal and are compatible with any DAC or home theater receiver equipped with Optical (Toslink), Coaxial (Coax) inputs. If you use the coax or BNC output you should use only a true 75 ohm interconnect cable that is specifically made for digital signals.

The BNC 75Ω connection will enable you to enjoy the highest quality sound if you purchase a 75Ω digital interconnect cable that is terminated with a 75Ω BNC connector at one end. Using an ordinary RCA-RCA interconnect with a BNC-to-RCA adapter at one end will not give comparable results.

# Playing a CD



## **On-Off Button**

Push the On-Off button once to turn on the CD 1. When the CD 1 is turned on the blue glow around the buttons will become brighter, the red P badge will glow brighter and the front panel display will illuminate after 3-4 seconds.

## **After You Turn On the CD 1      *This part is different than typical CD Players***

Most CD players are ready to play right after you turn them on.

However, the CD 1 does not play immediately after you turn it on.

After you press the On-Off button to turn on the CD 1 it requires approximately 20 seconds for its computer to “boot up” and ready for operation. During this short delay the front panel display shows the message “CD 1 IS STARTING UP PLEASE WAIT”. You may insert a CD into the CD 1 while it is starting up but it will not begin playing while the startup message is displayed.

## **The CD 1 Plays Only Red Book<sup>1</sup> CDs (and CD-Rs)**

The CD 1 is designed and is purpose-built to provide virtually perfect reproduction of Red Book CDs. It plays only the following types of discs:

- CDs
- The CD layer of two layer SACDs (The CD 1 will not play the SACD layer or SACD-only Discs)
- CD-Rs that are burned as audio CDs from a PC or Mac<sup>®</sup>.<sup>2</sup>

It is not designed to play the following discs:

- The SACD layer of a dual layer SACD
- Discs that contain MP3 files
- Commercial CDs with additional “copy control” code (in violation of the CD Red Book standard). This code is to prevent them from being copied on a PC or Mac<sup>®</sup>. Even if they are labeled as “CD”s, they are not actual CDs<sup>3</sup>. They might be playable on a regular CD player, but they cannot be played on the CD 1.
- CDs that are warped
- CDs that are dirty
- CDs that have stickers or labels
- CDs that have had anything applied to them, including so-called damping mats or dots, fluids or “treatments” that are purported to improve CD reproduction.

Do not insert such discs into the CD 1 loading slot. If you insert any non-CD disc into the CD 1 it will analyze it, determine that it is not a CD, and then eject it while the front panel display shows “NOT AN AUDIO DISC” or “ERROR READING DISC.”

<sup>1</sup> [http://en.wikipedia.org/wiki/Red\\_Book\\_%28CD\\_standard%29](http://en.wikipedia.org/wiki/Red_Book_%28CD_standard%29)

<sup>2</sup> This statement is included for the sole purpose of advising a technical/operational fact. Parasond encourages you not to violate copyright laws.

<sup>3</sup> [http://en.wikipedia.org/wiki/Copy\\_Control](http://en.wikipedia.org/wiki/Copy_Control)



## **Loading a CD**

Push the CD gently but firmly into the CD 1's loading slot. You need to push it in further than you would a car stereo slot-load player. Push the CD until its front edge sticks out only about 1" (25mm) in front of the CD 1's front panel. After the CD 1 pulls the disc inside it will automatically start to play about 10 seconds later because it is reading ahead on the CD and loading a huge amount of data into memory where it can be analyzed. .

## **Play-Pause Button**

Pressing the Play-Pause button while the CD is playing will pause it. Press again to resume play.

## **< > Buttons (Track Skip and Fast Forward/Back)**

The front panel < and > buttons have two functions. One short press of the > button skips ahead to the CD's next track; one short press of the < button skips back to its previous track. If you continue to press and hold the < or > buttons the CD 1 will fast forward ahead or fast back. The longer you press the button the faster the fast forward or fast back speed will be.

**Note:** Fast forward and fast back are normally silent until play resumes. However, you can choose audible fast forward or fast back in the CD 1's setup menu. The fast forward and fast back speed is slower if you want them to be audible. It will also stop every 20 seconds and play for a few seconds so you can hear where you are on the CD.

## **Stop-Eject Button**

If a CD is playing, the first time you press the Stop-Eject button it will stop playing. Pressing the Stop-Eject a second time will eject the CD.

## **Analog Output Button**

The Discrete-Opamp button on the CD 1's front panel gives you the option of listening to the analog outputs directly from the opamp output stage or the discrete transistor output stage. The discrete output stage uses discrete transistors that operate in the feedback loops of the opamps so that the specs for THD and noise are the same for both settings. The discrete output setting subtly changes the sonic character of the CD 1 and fortunately there is no "wrong" choice.

# Remote Control

The CD 1 remote control has a maximum range of approximately 20 - 25 feet (6 - 7.5m). Use only AAA alkaline batteries and insert them according to the + and – polarity markings in the battery compartment.

Please recycle your used batteries.

## Off and On Buttons

The Off and On buttons have the same function as the On-Off button on the front panel. These separate buttons enable you to program unambiguous “hard” off and on commands into a system controller or to create a stable macro sequence for a programmable remote control.

## Number Buttons

The number buttons allow you to play a particular track. If you want to play a track higher than 9, press the 10+ button first and then the next digit (For example, number 14 is 10+, then 4).

## Transport Buttons (Play, Stop, Pause, Eject, Track Skip)

These transport buttons control CD playback.

## << (Fast Back) and >> (Fast Forward) Buttons

If you press and hold one of these buttons the CD 1 will fast forward or fast back. The longer you hold down the button, the faster the speed will go. Fast forward and back are normally silent until play resumes. You can choose audible fast forward or fast back in the setup menu. The movement is slower and will stop every 20 seconds to play a few seconds so you can hear where you are on the CD.

## Dim Button

Press the Dim button to decrease the brightness of the front panel display or to turn it off completely. Whenever the CD1 is turned on its front panel display brightness is at its maximum.

## Polarity Inv (Invert) and Norm (Normal) Buttons

The factory default is for normal (0°) absolute polarity. Press the Polarity Inv (Invert) button to invert the absolute polarity of the analog outputs 180°. Press the Norm (Normal) button to restore normal polarity and the same polarity (0°) as it is recorded on the CD. The CD 1 front panel indicates when you select inverted polarity. There is no indication for normal polarity.

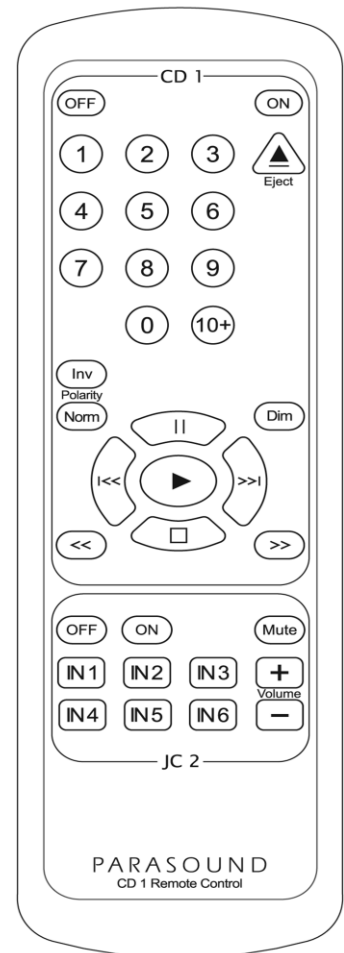
Please note that the polarity buttons affect only the balanced and unbalanced analog Outputs. They do not affect the digital outputs.

Correct absolute polarity insures that loudspeaker cone or diaphragm movement in (negative pressure) and out (positive pressure) is consistent with the original recording. While correct absolute polarity may not be audible in many recordings, you may detect a marked audible improvement in very well-recorded performances. Contact the manufacturer of your power amplifier and preamplifier if you are uncertain if they maintain correct invert polarity. If your amplifier or preamplifier invert polarity you might want to turn polarity invert on. It is also important to remember that not all CDs are mastered with the correct absolute polarity, so even if all your equipment is non-inverting, the CD itself might be mastered inverted. You may also find that some recordings simply sound better if you invert the polarity. In this case you can simply select the polarity setting that sounds best.

*Please note that Parasound amplifiers and preamplifiers do not invert the polarity.*

## JC 2 (and P 7) Preamp Control Buttons

These buttons enable you to control the Parasound JC 2 and P 7 preamplifiers.



# **Setup Menu Options**

The CD 1 includes a setup menu for several operational preferences. To enter the setup menu first eject and remove a CD that might be in the player. Next press the “>” button on the front panel and the first setup option will appear on the front panel display. Press the “>” button again to see the next setup option.

## **Eject At Power Off**

The CD 1 comes from the factory set to eject a CD when you turn it off.

Press the front panel “Play-Pause” button to toggle between the two options:

**Yes:** The CD will be ejected when you turn the CD 1 off. This is the factory default setting.

**No:** The CD will not be ejected when you turn the CD 1 off.

**Note:** If a CD is blocked during ejection the CD will be pulled back into the CD 1 and play again.

You should choose “No” if your CD 1 is installed in a cabinet with a door that might prevent the CD from properly ejecting from the player.

## **Sound While Winding (Fast Forward or Fast Back):**

The CD 1 comes from the factory so you cannot hear anything during fast forward and fast back operation.

Press the front panel “Play-Pause” button to toggle between the two options:

**Yes:** When pressing the “<<” or “>>” buttons on the remote control or when pushing down the “<” or “>” buttons on the front panel you will hear a short clip of audio. Two seconds of play will be audible every 20 seconds. This can be useful when you are trying to find a specific section on your CD.

**No:** No sound will be heard during fast forward or fast back. As a result, fast forward and fast back will move much faster as you search for a particular elapsed time on the CD. This is the factory default setting.

## **Store (save) Settings:**

You must take this additional step to save your changes. Press the “Play-Pause” button to save any changes you might have made. If you fail to press the Play-Pause button your choice will not be saved.

## **Restore Defaults**

If you want to restore your CD 1 to its factory defaults press the “Play-Pause” button. The factory defaults are set to eject the CD upon turn off and no sound while fast forward or back.

## **Software Version**

This will display the software version installed on your CD 1.

# **Problems and Remedies**

## ***Unit will not turn on***

- Check that the Master AC power switch on the rear panel is set to ON
- Check that the AC power outlet is live.

## ***No sound from speakers***

- Check that input cables and speaker wires are secure at both ends.
- Make sure the preamp is switched to the correct input.
- Make sure that all accompanying equipment such as power amplifiers are powered on.

## ***Background Hum or Hiss***

- Make sure that all AC cords are plugged into the same outlet or power strip
- Move audio cables and AC cords away from each other.
- Try different routes for the audio cables and AC cords.
- Make sure insulating shoulder washers are used if unit is rack mounted.
- If you have cable or satellite TV, try disconnecting the incoming TV or satellite cable; if hum is eliminated you will need a Cable TV Ground Isolator or contact your TV service provider for assistance.
- Try turning down the input gain controls on the power amps

## ***Disc will not eject***

- First try momentarily disconnecting the AC power from the CD 1 then power it up and try ejecting again (after the unit has fully booted up).
- If you still cannot get the disc to eject please wait several minutes after pressing the stop button and then press the eject button again.

## ***Player Feels Too Hot***

- It is normal for the CD1 to run noticeably warm. It should never feel too hot to touch. If the player feels too hot then you must improve ventilation around the player and move equipment that is immediately below or above the CD 1.

# **Are You Having Difficulty?**

## ***Repair or Service***

Call your Parasound dealer first. If the dealer can't help you with your problem we encourage you to call Parasound's Technical Service Department at **415 397-7100**, Monday - Friday, 8am - 4pm Pacific Time. We can suggest other diagnostic tests you can easily perform.

If we determine that your CD 1 should be returned to Parasound or an Authorized Parasound Warranty Center for inspection and possible servicing, we will provide the location of a warranty center near you or shipping instructions for the unit's return to Parasound.

## ***Before You Return Any Unit to Parasound for Service***

Before you send your unit to Parasound, you will need to obtain a specific Return Authorization (RA) number and shipping instructions from Parasound's Technical Department. The RA number must be clearly marked on the outer carton. Use the original factory packing materials and arrange adequate insurance to cover its value. You must include a copy of your purchase receipt, since this document establishes the validity of this unit's warranty. Warranty repairs are only performed by Parasound or Parasound Authorized warranty centers when your purchase receipt is from a Parasound Authorized Dealer or Parasound Authorized Reseller.

## **Shipments Will Be Refused by Parasound Under the Following Conditions:**

1. Unit was sent without the Parasound-assigned RA number marked on the carton.
2. Unit was sent in an unsuitable shipping carton and packing inserts and is likely to have been damaged in transit.
3. Unit has inadequate packing materials and is likely to have been damaged in transit. Wrapping the CD 1 with bubble wrap will not protect it during shipment.
4. Unit was shipped collect for shipping charges. We do not accept collect shipments.
5. Unit was shipped via the US Postal Service.
6. Unit was sent to an address other than the address instructed by our Technical Department.

## ***Warranty Repair***

Please read your accompanying Parasound Limited Warranty carefully to understand the applicable rights and limitations. This section provides instructions for obtaining repairs, both for units covered under the Parasound Limited Warranty and for units or situations which are outside the Warranty. The complete warranty can be found at [www.parasound.com](http://www.parasound.com).

## **Unit is not eligible for repair under the terms of the Parasound warranty if:**

1. Unit was not purchased from a Parasound Authorized Dealer.
2. You do not have the original bill of sale or sales receipt from a Parasound Authorized Dealer.
3. You are not the original owner. The Parasound warranty is not transferable.
4. Unit's serial number was removed, modified, or defaced.
5. Unit shows evidence of abuse and/or misuse.
6. Unit was modified in any way.
7. A prior repair was attempted by an unauthorized repair station.

# **Specifications**

**Frequency Response:** 20 Hz - 20 kHz, +0/-0.05 dB

**THD Distortion:** < 0.06% at 1 kHz

**S/N Ratio:** > 108 dB, IHF A-weighted

**Crosstalk:** > 77 dB at 20 kHz

**Maximum Output Level Unbalanced:** 2.0 Volts

**Maximum Output Level Balanced:** 4.0 Volts

**Output Impedance Unbalanced:** 100 Ohms

**Output Impedance Balanced:** 200 Ohms

**AC Power Requirement:**

115 Volts, 60 Hz or 230 Volts, 50 Hz  
(Rear panel switch selects 115V or 230V operation)  
Power Consumption: 45 Watts  
Standby Power Consumption: 0.5 Watt

**Dimensions:**

Width: 17 1/4" (437 mm)  
Depth: 13 3/4" (350mm)  
Height, with feet: 4 1/8" (105mm)  
Height, without feet: 3-1/2" (89mm)

**Weight:**

Net: 18 lbs. (8.2 kg)  
Shipping: 25 lbs. (11.3 kg)

**Rack Mount Accessory:**

HRA 2 (May be purchased separately)

Specifications and features subject to change or improvement without notice.  
Copyright Parasound Product Inc., 2012

Rev. 1.0



---

We invite you to visit [www.parasound.com](http://www.parasound.com) for the most up-to-date information on your unit and to find out about other Parasound products. Learn why Parasound has been a quality and value favorite of magazine reviewers, sound professionals and listeners like you since we were founded in 1981.



PARASOUND  
NEW CLASSIC



PARASOUND®

Parasound Products, Inc. 2250 McKinnon Ave, San Francisco, CA 94124  
Customer Service: 415-397-7100  
[www.parasound.com](http://www.parasound.com)